Official Test Material Pictures. Test Patterns and Audio Signals (FCC Advisory Committee on Advanced Television Service)

ATTCID# Name

Test Application

I. Static (Still) Pictures (Source PS/WP6)

51	Metal Table & Chairs	Luminance resolution (P)
\$2	Vines	Luminance resolution (BU); Training or demo image
\$3	Wavy Wall	Luminance rendition (P)
S4	Columns	Luminance dynamic range (P)
S 5	Tulips	Chrominance resolution (P); Noise impairment (P)
S6	Sculptures	Chrominance resolution (BU); training or demo image
S7	Fruits & Vegetables	Color gamut (P)
S8	Toys	Chrominance dynamic range (P)
S9	Girl with Toys	Peripheral performance (P); Interference (P)
\$10	Memorial Arch	Depth portrayal (P)
SII	Woman with Roses	Noise impairment (P); Interference (P)
512	Lorain Harbour	Noise impairment (BU); training or demo image
\$13	Flower on Plate	Multipath (BU); Microreflections [?]
514	Graphics	Basic received quality, electronic graphics still

(P) = Primary image. (BU) = Back up image.

II. Dynamic (Motion) Sequences [Source: PS/WP6]

· Live Television Camera

М1	Window	Basic received quality, luminance resolution, low acceleration.
M2	Copier	Basic received quality, dynamic luminance resolution, high acceleration.
M3	Variety Store	Basic received quality, dynamic chrominance resolution, low acceleration.
V14	Mannequins	Basic received quality, dynamic chrominance resolution, high acceleration.
115	Living Room	Basic received quality, motion rendition, camera.
M6	Den T	Basic received quality, motion rendition, single object in-scene movement.
M7	Park Ride	Basic received quality, motion rendition, multiple object in-scene movement.
M8	Bubbles	Basic received quality, motion rendition, multiple object in-scene movement.
M9	Audience	Basic received quality, motion rendition, multiple object in-scene movement.
M10	Man and Room	Basic received quality, motion rendition, camera & in-scene movement combined.
M11	Desk Lamp	Noise and other impairment.
M12	Times Square	Multipath and microreflections.
	Map	[Transconvertor, only?].
	Co-channel	Desired for co-, adjacent, & taboo channel interference,
	-	Desired/Undesired for ATV-to-ATV.
M15	Primary	Undesired for ATV-to-NTSC and NTSC-to-ATV interference.

• Computer Generated Graphics

M16 [Graphics] Basic received quality, electronic graphics sequ	M16	[Graphics]	Basic received	l guality, e	electronic gra	whics sequer	ICE
---	-----	------------	----------------	--------------	----------------	--------------	-----

• Film Origination

M17	(Film 1)	Basic received quality, film transfer
M18	(Film 2)	Basic received quality, film transfer
M19	[Film 3]	Basic received quality, film transfer
M20	(Film 4)	Basic received quality film transfer (Sho

Dynamic Resolution Wheel (Live Television)	n Camera) [Source: ATTC]
M22 [Pattern 2] Dynamic resolution. M23 [Pattern 3] Dynamic resolution. M24 [Pattern 4] Dynamic resolution. M25 [Pattern 5] Dynamic resolution.	Temporal artifacts (EO&C)
III. Test Patterns (Static and Dynamic)	[Source: ATTC]
T1 Flat Field. Static (50%). NTSC T2 Flat Field. Static (50%). ATV T3 Flat Field. Dynamic T4 Line Rate Ramp T5 Radial Resolution Pattern (G) T6 2T30 Pulse & Window T7 Color Bars T8 Matrix (G) (S) T9 Text T10 Double Windows (G) T11 Zone Plate (static, moving) "T99" (Place holder)	NTSC Desired for interference. ATV Desired for threshold ATV Desired for threshold, alternate Chrominance component dynamic range Temporal response Temporal response Color difference compatibility; E-NTSC S/N Tx signal spectrum Point of Unusability: Multipath threshold of visibility Transient response Temporal response (Video source for "voice-over" instructions on rating tapes— not a true test signal.)
"(G)" = Pattern may be gated to system unde "(S)" = Pattern may be displayed as split scre 1 (1 static+ 3 V rates + 3 H rates) x 4 levels 2 Manual settings determined from technical	een with gray field. = 28 patterns analysis of each system.
IV. Audio Test Signals [Source: PS/WP6	5; originsas noted]
A1 Susanne Vega [A&M 395 136-2, track A2 Tracy Chapman (Elektra 960 774-2, track A3 Glockenspiel (EBU SQAM 422 204-2, A4 Fireworks (Pierre Verany 788031, track A5 Ornette Coleman (Dreams, track 7) A6 Bass Synthesizer (Special R-DAT (M-A7 Castanets (EBU SQAM 422 204-2, track A8 Male Speech (Japan Audio Soc. CD-3, A9 Bass Guitar (Special R-DAT (M-PEG) A10 Haydn Trumpet Conc (Philips 420 203)	ack 6] Quality. Tx Impairment track 35/1] Quality. Tx Impairment tk 1] Quality Quality PEG)] Quality ck 27] Quality track 17/2] Quality. Tx Impairment] Quality
Unofficial/Demonstration Materials (I	For proponent, ATTC/CableLabs/CRC, etc. Demos)
• (#7) Dynamic sequences (video origin) de PS/WP-6]	rived from PS/WP6 shootavailable to proponents by [Source:
• (#?) Static pictures and/or test patterns (So	purce:]

8. TEST METHODS FOR INDIVIDUAL IMPAIRMENTS

This section details the particular test method to be used for a given impairment. In some cases an impairment will be first tested by ranging and then by rating so it will appear more than once in the following lists.

8.1. ATV Threshold of Visibility

- Discrete Frequency Interference
- Impulse Noise

8.2. ATV Threshold of Visibility and Point of Unusability

- Multipath
- Airplane Flutter
- UHF Taboos
- Cable ICPM
- Cable Second Order Intermodulation
- Cable Hum and Low-Frequency Noise

8.3. ATV Ranging (3 "D" levels except as noted)

- Random Noise (1 "D" level)
- Co-Channel Interference (2 "D" levels)
- Upper Adjacent Channel Interference (2 "D" levels for Enhanced-NTSC systems)
- Lower Adjacent Channel Interference (2 "D" levels for Enhanced-NTSC systems)
- Cable Third Order Intermodulation (1 "D" level)

8.4. ATV Transmission Impairment Rating (3 "D" levels except as noted)

- Random Noise (1 "D" level)
- Co-Channel Interference (2 "D" levels)
- Upper Adjacent Channel Interference (2 "D" levels for Enhanced-NTSC systems)
- Lower Adjacent Channel Interference (2 "D" levels for Enhanced-NTSC systems)
- Cable Third Order Intermodulation (1 "D" level)

8.5. NTSC Received ATV Threshold of Visibility and Point of Unusability (Enhanced-NTSC systems only)

- Random Noise
- Multipath
- Airplane Flutter
- Impulse Noise (TOV only)

8.6. NTSC Calibration

- Random Noise
- Co-Channel Interference
- Lower-Adjacent Channel Interference
- Upper-Adjacent Channel Interference
- UHF Taboos

8.7. NTSC Ranging (3 "D" levels except as noted)

- Co-Channel Interference (2 "D" levels)
- Upper Adjacent Channel Interference (2 "D" levels for Enhanced-NTSC systems)
 Lower Adjacent Channel Interference (2 "D" levels for Enhanced-NTSC systems)
- Linear UHF Taboos (2 "D" levels for Enhanced-NTSC systems)
- Non-Linear UHF Taboos

8.8. NTSC Transmission Impairment Rating (3 "D" levels except as noted)

- Co-Channel Interference (2 "D" levels)
 Upper Adjacent Channel Interference (2 "D" levels for Enhanced-NTSC systems)
- Lower Adjacent Channel Interference (2 "D" levels for Enhanced-NTSC systems)
- One Selected Linear UHF Taboo (2 "D" levels for Enhanced-NTSC systems)
- One Selected Non-Linear UHF Taboo

8.9. Quality Rating

- ATV Basic Quality
- NTSC Reception Quality (Enhanced-NTSC systems only)
- ATV Cable Quality
- ATV Fiber Quality

8.10. Expert Observation and Comment

- ATV Limiting Resolution
- NTSC-Compatible Limiting Resolution
- VCR Companibility for Enhanced NTSC
- Cable High-Level Sweep

ADVANCED TELEVISION EVALUATION LABORATORY (COMMUNICATIONS RESEARCH CENTRE)

Suite 109, 600 Terry Fox Drive : Kanata (Ontario), CANADA : K2L 4B6 Telephone: 613 592-1727 : Facsimile: 613 592-4398

Your file Votre reference

Our his tenne reterence

VIA FACSIMILE

21 January 1991

Mr. Mark Richer Chairman, FCC-ACATS/SSWP2

Mr. Robert Hopkins Chairman, FCC-ACATS/SSWP1

Mr. Hugo Gaggioni Chairman, FCC-ACATS/SSWP1 Task Force on Data Format

Dear Sirs:

To present the results of the ATV Subjective Tests, the Advanced Television Evaluation Laboratory plans to prepare seven (7) reports. Six (6) Single-System Reports will be prepared to present the results obtained for each system individually. Under current plans, these Reports would be presented to the Advisory Committee shortly after completion of the tests for the systems to which they refer. A single, Overall Report will be prepared to bring the results presented in the Single-System Reports together in a single, coherent document. Under current plans, this Report would be presented to the Advisory Committee shortly after completion of the sixth Single-System Report.

I have attached, for review by the groups in your charge, DRAFT descriptions of the two types of Reports proposed. I am, of course, at your disposal should you require further information or wish to suggest ways in which the Reports could be made more responsive to need.

Sincerely yours

Paul J. Hearty Director

Advanced Systems Evaluation

Par J. Hang

Canada'

ADVANCED TELEVISION EVALUATION LABORATORY (Communications Research Centre, Canada)

RESULTS OF ADVANCED TELEVISION SUBJECTIVE TESTS

[DRAFT OUTLINE] SINGLE-SYSTEM REPORT

SYSTEM TESTED:			
TESTS (DATES):	ATV RATING TESTS:		
	ATV Quality:		
	ATV Basic Quality	1	1
	ATV Cable Quality	į	j
	ATV Fibre Quality	Ċ	j
	ATV Impairment/Interference:		
	Random Noise	(}
	Co-Channel (ATV-to-ATV)	i	í
	Lower Adjacent Channel (ATV-to ATV)	ì	í
	Upper Adjacent Channel (ATV-to-ATV)	ì	í
	Co-Channel (NTSC-to-ATV)	ì	í
	Lower Adjacent Channel (NTSC-to ATV)	ì	í
	Upper Adjacent Channel (NTSC-to-ATV)	ì	í
	Cable 3rd Order Intermodulation	ì	j
	NTSC RATING TESTS:		
	NTSC Quality:		
	NTSC Reception Quality	()
	NTSC Interference:		
	Co-Channel (ATV-to-NTSC)	()
	Lower Adjacent Channel (ATV-to NTSC)	i	j
	Upper Adjacent Channel (ATV-to-NTSC)	į	í
	Linear UHF Taboo (ATV-to-NTSC)	į	Ś
	Non-Linear UHF Taboo (ATV-to NTSC)	į	Ś

01			15	FS	
31	ur	4-6	JF	гэ	:

Representative of Test Laboratory	Date
Representative of Proponent	Date
Representative of FCC-ACATS	Date
Representative of [CDN Organization]	Date

ATV SUBJECTIVE TESTS OF [SYSTEM X]

ATV RATING TESTS

ATV Quality. This section will consist of three (3) tables of the form given in Table 1. There will be one (1) such table for each of:

- ATV Basic Quality;
- ATV Cable Quality; and,
- ATV Fibre Quality.

ATV Impairment/Interference. This section will consist of a single table of the form given in Table 2. This table will involve concatenated entries for:

- Random Noise:
- Co-channel interference (ATV-to-ATV);
- Lower Adjacent Channel Interference (ATV-to-ATV);
- Upper Adjacent-Channel Interference (ATV-to-ATV);
- Co-channel Interference (NTSC-to-ATV);
- Lower Adjacent Channel Interference (NTSC-to-ATV);
- Upper Adjacent Channel Interference (NTSC-to-ATV); and,
- Cable 3rd Order Intermodulation.

NTSC RATING TESTS

NTSC Quality. This section, which applies only to NTSC-compatible systems, will consist of one (1) table of the form given in Table 1. This will summarize results for:

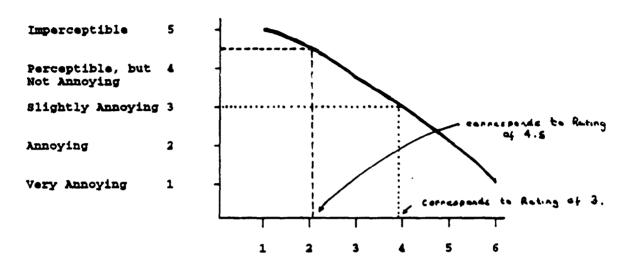
- NTSC Reception Quality.

Interference to NTSC. This section will consist of a single table of the form given in Table 2. This will involve concatenated entries for:

- Co-channel Interference (ATV-to-NTSC);
- Lower Adjacent Channel Interference (ATV-to-NTSC):
- Upper Adjacent Channel Interference (ATV-to-NTSC);
- Linear UHF Taboo (ATV-to-NTSC); and,
- Non-Linear UHF Taboo (ATV-to-NTSC).

ANNEX

The Annex will consist of series of graphs giving the results of all Impairment/Interference tests carried out. These graphs will take the form:



LEVEL OF IMPAIRMENT INTRODUCED (dB, C/N, or D/U)

The graphs will present mean impairment rating as a function of the level of impairment introduced (e.g., in dB, C/N, or D/U) and, as appropriate, as a function of Desired-signal level.

TABLE 1: GENERIC FORMAT FOR SINGLE-SYSTEM QUALITY TEST RESULTS

Ficture Quality Attribute	foot Item	Rofe	Reference	Test	ود	100- (Ref-Test)	f-feet)	BOTES
	-	×	Q#	×	92	×	Q	
FILL	#8 1-B							Across stills, is sys. signifi- cantly better/worse than fel.?
Stat luma Resol								Item-by-item, is eys, signifi- cantly better/worse than ref.;
Stat Chrome Resol								Item-by-item, notes and comments.
Luma Rendition								
Luma Dynamic Range								
Color Gamut/ Rend	-							
Color Dyn Range								
Depth Portrayal								
Peripheral Performance								
Elect Gen Meterial								
MOFICAL	Me 1-n							Agross sequences, is eye, significantly better/worse than roll:
Dyn Lums Resol 1								Trem-by-item, is sys. signifi-
Dyn Lums Resol 2								
Dyn Chroma Resol 1								
Dyn Chrome Resol 2								
Motion Rend Camera								
Motion Rend Scene 1								
Motion Rend Scene 2								
Motion Rend Scene 3	•					··		
Motion Rend Scene 4								
Motion Rend (comb.)								
Elect Gen Material								
Film (24 fps)								
F11m (30 fps)								
Film (60 fps)								

TABLE 2: GENERIC FORMAT FOR SINGLE-SYSTEM IMPAIRMENT/INTERFERENCE TEST RESULTS

		As	sociated Level of	Impairment (Interpola	ted)	
Impairment/Interference	/Interference Test Item Rating = 4.5 Rating = 3		MOTES			
		X	s D	x	SD	
RAMDOM NOISE	Sx-y, Mx					Across stills and sequences, means and SDs.
still 1		4.5 is between "imperceptible" & "perceptible,		3 is 'elightly appoying's rough		Item-by-item, notes and
Still 2]	& "perceptible, but not annoy-		3 is "elightly annoying"; rough est of point at which sys. is		
Motion 1		but not annoy- ing"; rough est of threshold.		unacceptable.		'
CO-CHANNEL (D1, FROM ATV)	sx-y; Ms					Across stills and sequent cos, means and fire for Desired Signal level 1.
Desired 1: Still 1						Item-by-item, notes and comments.
Desired 1: Still 2	1	in the second se				
Desired 1: Motion 1	<u> </u>					
CO-CHAINEL (D2, FROM ATV)	Sx-y/Mz					Across stills and seques ces means and she for Desired Signal level 1.
Desired 2: Still 1				T .		Item-by-item, notes and
Desired 2: Still 2						
Desired 2: Motion 1	}					
COMMENTS: Hotes on any facto	ors, occurrenc	es, Observations, w	which might influen	ce the interpretation	of results descr	ibed in Co-Channel (from ATV)

Impairment/Interference Table Continues.

ADVANCED TELEVISION EVALUATION LABORATORY (Communications Research Centre, Canada)

RESULTS OF ADVANCED TELEVISION SUBJECTIVE TESTS

[DRAFT OUTLINE] OVERALL REPORT

SYSTEMS TESTED: COMPATIBLE SYSTEMS:

System 1

(proponent)

SIMULCAST SYSTEMS:

System 2

(proponent)

System 3

(proponent)

System 4

(proponent)

System 5

(proponent)

System 6

(proponent)

TESTS COVERED:

ATV RATING TESTS:

ATV Quality:

ATV Basic Quality

ATV Cable Quality

ATV Fibre Quality

ATV Impairment/Interference:

Random Noise

Co-Channel (ATV-to-ATV)

Lower Adjacent Channel (ATV-to ATV)

Upper Adjacent Channel (ATV-to-ATV)

Co-Channel (NTSC-to-ATV)

Lower Adjacent Channel (NTSC-to ATV)

Upper Adjacent Channel (NTSC-to-ATV)

Cable 3rd Order Intermodulation

NTSC RATING TESTS:

NTSC Quality:

NTSC Reception Quality

NTSC Interference:

Co-Channel (ATV-to-NTSC)

Lower Adjacent Channel (ATV-to NTSC)

Upper Adjacent Channel (ATV-to-NTSC)

Linear UHF Taboo (ATV-to-NTSC)

Non-Linear UHF Taboo (ATV-to NTSC)

.

SI	GN-OFFS:	

Representative of Test Laboratory	Date
Representative of Proponent	Date
Representative of FCC-ACATS	Date
Representative of [CDN Organization]	Date

6 J

OVERALL RESULTS OF ATV SUBJECTIVE TESTS

ATV RATING TESTS

ATV Quality. This section will consist of three (3) tables of the form given in Table 1. There will be one (1) such table for each of:

- ATV Basic Quality;
- ATV Cable Quality; and,
- ATV Fibre Quality.

ATV Impairment/Interference. This section will consist of (2) two tables of the forms given in Tables 2 and 3. Each table will involve concatenated entries for:

- Random Noise:
- Co-channel Interference (ATV-to-ATV);
- Lower Adjacent Channel Interference (ATV-to-ATV);
- Upper Adjacent-Channel Interference (ATV-to-ATV);
- Co-channel Interference (NTSC-to-ATV);
- Lower Adjacent Channel Interference (NTSC-to-ATV);
- Upper Adjacent Channel Interference (NTSC-to-ATV); and,
- Cable 3rd Order Intermodulation.

NTSC RATING TESTS

NTSC Quality. This section, which applies only to NTSC-compatible systems, will consist of one (1) table of the form given in Table 1. This will summarize results for:

- NTSC Reception Quality.

Interference to NTSC. This section will consist of two (2) tables of the forms given in Tables 2 and 3. Each will involve concatenated entries for:

- Co-channel Interference (ATV-to-NTSC);
- Lower Adjacent Channel Interference (ATV-to-NTSC);
- Upper Adjacent Channel Interference (ATV-to-NTSC);
- Linear UHF Taboo (ATV-to-NTSC); and,
- Non-Linear UHF Taboo (ATV-to-NTSC).

TABLE 1: GENERIC FORMAT FOR OVERALL QUALITY TEST RESULTS

Figure Quality Attribute Total Integrated Tot									
Marcon stile, means, SDs, National Steep Steep Stile, means, SDs, National Steep Stile, Stile, means, SDs, National Steep Stile, S	lume pasol Chrome Resol	ot Item	x No 1	X SD R	x % x	x Ye 4	x 35 x	r gr r	BOTES
User Beacl	Stat lumm Basol Stat Chrome Resol	1-B							means, fibs,
According	stat Chroma Resol								Botes and comme
Date									
Pottage Page Pottage	Lume Readition								
Date	Luma Dynamic Range								
Portrayal	Color Games / Rend								
Portrayal	color Dyn Range							<u></u>	
Description	Depth Portrayal								
Marce Marc	Peripheral Performance								
Mass 1-m Across stills, means, 85s, Name Resol 1 New Resol 2 Item-by-item, motes and community New Resol 1 Item-by-item, motes and community Name Resol 1 Item-by-item, motes and community Name Grams 1 Name Grams 2 Name Grams 2 Name Grams 3 Name Grams 3 Name Grams 4 One Material (34 fps) (35 fps) (46 fps)	glect den Meterial								
Item-by-Item, motes and com-		l :							stills, means, 6Ds,
Dyn Chroma Resol 2 Dyn Chroma Resol 1 Dyn Chroma Resol 2 Motion Read Gene 1 Motion Read Gene 2 Motion Read Gene 3 Motion Read Gene 3 Motion Read Gene 4 Motion Read Gene 9 Motion	Dyn Lumm Resol 1								Botes and com
Dyn Chroma Resol 1 Dyn Chroma Basol 2 Motion Read Camera Motion Read Scene 1 Motion Read Scene 2 Motion Read Scene 3 Motion Read Scene 4 Motion Read (comb.) Elect Gen Material Film (34 fps) Film (36 fps)	Dyn Lums Resol 2								
Dyn Chroma Resol 2 Hotion Read Genera Hotion Read Scene 2 Hotion Read Scene 3 Hotion Read Scene 4 Hotion Read (comb.) Elect Gen Material Film (34 Eps) Film (60 Eps)	Dyn Chrome Resol 1								
Motion Read Scene 1 Motion Read Scene 2 Motion Read Scene 3 Motion Read Scene 4 Motion Read Scene 3 Motion Read Scene 4 Motion	Dyn Chrome Resol 2								
Motion Read Scene 1 Motion Read Scene 2 Motion Read Scene 4 Motion Read (comb.) Elect Gen Material Film (14 Eps) Film (16 Eps)	Hotlon Rend Camera								
Motion Read Scene 3 Motion Read Scene 4 Motion Read (comb.) Elect Onn Material Film (36 fps) Film (36 fps)	Motion Rend Scene 1								
Motion Read Scene 4 Motion Read (comb.) Elect Gen Material Film (34 Eps) Film (36 Eps)	Motion Rend Scene 2								
Motion Rend Scene 4 Motion Rend (comb.) Elect Gen Material Film (14 fps) Film (16 fps) Film (60 fps)	Motion Rend Scene 3								
Motion Read (comb.) Wisct Oan Material Film (26 fps) Film (36 fps)	Hotios Rend Scene 4								
#10ct Com Material Film (14 fps)	Motion Rend (comb.)								- 44
Film (36 fps) Film (30 fps)	Elect Gen Material								
Film (30 fpe) Film (60 fpe)	Film (24 fps)				···				
Film (60 fps)	Film (30 fpe)								
	Film (60 fps)								

TABLE 2: GENERIC FORMAT FOR OVERALL IMPAIRMENT/INTERFERENCE TEST RESULTS

Impairment/Interference	Toot Item	Assoc	slated Lavel	Associated Lavel of Impairment (Interpolated) Rating = 4.5; I, 4D, and Bank	(Interpolated) L. 4D, and Rank	d) FOR SYSTEMS 1-6	1-6	PELON
		X Sye 1 R	X Sys 2 R	x 60 x	x bys 4 x	E SPS S	x No. a	
RAMIDON MOTOR	138 (Å-219							Adross stills & segs, means, SDe, hanks.
scill 1								Item-by-item,
#c111 2						•		coments.
Motion 1						•		
COmmunity Motes on any factors, Moise.		a, observati	tons, which s	occurrences, observations, which might influence the interpretation of results described in Random	• the interpi	retation of r	menite descri	lbed in Random
		:						
CO-CHANNEL (D1, FROM ATV)	êx-y, its							Across stills & good of grant leading to good of good o
Desired 1, Still 1								Item-by-item.
Desired 1: Still 2								competts.
Desired 1: Motion 1								
CO-CHANNEL (D3, PROM ATV)	6x-y)#s							Across stills &
Desired 2: Still 1								Item-by-item.
Desired 2: Still 2								competts.
Desired 2: Motion 1								
COMMENTS: Notes on any factors (from Arv).	rs, occurreso	se, observat	lone, which	might influen	se the interp	retation of	results desor	, occurrences, observations, which might influence the interpretation of results described in Co-Channel

spairment/Interference Table continues.

TABLE 3: GENERIC FORMAT FOR OVERALL IMPAIRMENT/INTERFERENCE TEST RESULTS

		Assoc	lated Level o	Associated Lavel of Impairment (Interpolated)	(Interpolated	4) FOR SYSTEMS 1-6	1-6	
Impairment/Interference	Tost Item		-	Rating . 3; K,	, 4D, and Rank	M		BOTES
		X Sp. 1	X Sp. 2 R	X Sto 3 R	x sys 4 x	X Sto S	X Sys 6	
RANDON BOZEE	271 /Å-23							Across stills, and separates, marks; fibs,
Still 1 Still 2 Motion 1								Item-by-fram, notes and comments.
COMMUNTS: Moise. Motes on any factors		e, observati	one, which	occurrences, observations, which might influence the interpretation of results described in Nandon	• the interpr	etation of F	ssults descri	lbed in Random
CO-CHANNEL (D1, FROM ATV)	2)1 (Å-X8							Across stills & segs, mans to be to
Desired 1: Still 1 Desired 1: Still 2 Desired 1: Motion 1								Item-by-item bots-dad commate.
CO-CHAMMEL (D2, PROM ATV)	Bx-Yılis							Estimated in the Control of the Cont
Desired 2: Still 1 Desired 3: Still 2 Desired 2: Motion 1								Item-by-item. Botos ind commets.
COMMENTS, Notes on any factors (from ATV).		s, observat	loss, which :	aight influence	se the latery	retation of E	esulte descr	, occurrences, observations, which might influence the interpretation of results described in Co-Channel

Impairment/Interference Table continues.



1991 January 24

Mr. H. Gaggioni
Chairman, SS/WP-4 Task Force on Data Collection
Sony Advanced Systems
3 Paragon Drive
Montvale, New Jersey 07645

Dear Hugo:

I have enclosed the first draft of report sheets for the "cable only" portion of the advanced TV tests. These sheets summarize the results determined by the experts observing the impaired ATV signals.

Please have your task force review the draft sheets any let me know if you agree with them or desire any changes

Sincerely yours,

Brian James,

Director - ATV Testing

cc: C. Tanner

C. Tallinet

B. Crutchfield

DRAFT SAMPLE DATA LIST: typ	pical data to be t	aken/output for a test	10/ 19/90
Proponent representative			Date
1.3.1. Luminance Static Horizontal Resolut	ton Test Schedule S	Sequence #	
Type of test: EO&C, 5 expert observers	Test signal(s):	Test penem, photo, mouon seque	BOS, ELC.)
PICTURE MONITOR:			(OUTPUT DATA)
Limiting horizontal resolution of the center area, in C/A	(PH (1:05)	Agre	nd or mean C/APH
C/APHC/APHC/APH	C/API	ŧ	
ZPG coefficients (10) (1) (2) (3) (4) (6) (7) (8) (9)	(5)		
Limiting resolution of the side panels, in C/APH. (11to	<u>. 51</u>	Agree	s or mean C/APH*
C/APH C/APH C/APH	C/API	ł	
ZPG coefficients (10) (1) (2) (3) (4) (6) (7) (8) (9)	(5) (10)		
PHOTOGRAPH: All conditions under which data were to 1. ID #	nken (<u>2)</u>		
VIDEO TAPE RECORD: All conditions under which da Time code 1 Time code 2 *	ta were taken [2]		
WAVEFORM MONITOR:			
Half-amplitude resolution response of the center area, if C/APH C/APH C/APH C/APH	C/API		ed or mean C/APH
ZPG coefficients (10) (1) (2) (3) (4) (6) (7) (8) (9)			
Half-amplitude resolution of the side panels, in C/APH. C/APH C/APH C/APH C/APH	C/API		d or mean C/APH*
ZPG occfficients (10) (1) (2) (3) (4) (6) (7) (8) (9)	(5)		
PHOTOGRAPH: All conditions under which data were to 1. ID #	aken {2}		
VIDEO TAPE RECORD: All conditions under which da Time code 1* Time code 2*	ta were taken (2)		

^{*} Data taken only where side panels are transmitted differently from center.

	Time Code:	Test Engineer: _
Test Data Accepted I		
1000 0000 00000	By:	
	Expert Observer	rs
		3:
4:		
	Interference Leve	els
Threshold of Visibility	y of Interference:	%
Point of Unusability:	_	%
Range Ratios 1:	2: 3: 4: _	5: 6: 7:
-		5: 6: 7: 8:
		_ 0 0
	Comments	
· · · · · · · · · · · · · · · · · · ·		

Test Date:	ATV Car	rier Freq.:		ATV Sys	tem:
Video Tape Nu	mber: Ti	me Code:		Test En	gineer:
Test Data Acc	cepted By:				
	Expert	Observe	rs		
	2:				
4:	5:			-	
	Interfere	nce Lev	reis		
Threshold of \	isibility of Interfe	erence: _		%	
Point of Unusab	lity:	_		%	
Range Ratios 1	2: 3:	4: _	5: _	6:	_ 7:%
Recording Level	s 1: 2: 3:	4: _	5:	_ 6: 7:	8: %
	Comr	nents			
			<u> </u>		
				-	

Test Date:	ATV Carrier Freq.:	ATV System:
Video Tape Number	r: Time Code:	Test Engineer:
Test Data Accepted	d By:	
	Expert Observers	
1:	2:	3:
4:	5:	
	Interference Levels	
Threshold of Visibi	ility of Interference:	%
Point of Unusability:		%
Range Ratios 1:	2: 3: 4: 5	o: 6: 7:%
Recording Levels 1:	2: 3: 4: 5:	6: 7: 8: %
	Comments	
		·

	60 Hz (Hum) Modulation
Test Date:	ATV Carrier Freq.: ATV System:
Video Tape Nu	umber: Time Code: Test Engineer:
Test Data Acc	cepted By:
1:	Expert Observers 2: 3:
4:	5:
	Interference Levels
Threshold of	Visibility of Interference:%
Point of Unusal	ability:%
Range Ratios	1: 2: 3: 4: 5: 6: 7:%
Recording Leve	els 1: 2: 3: 4: 5: 6: 7: 8: %
	Comments

Composite 5	Second Order (50/50)	Interference
Test Date:	ATV Carrier Freq.:	ATV System:
Video Tape Number:	Time Code:	Test Engineer:
Test Data Accepted	Ву:	
	Expert Observers	
	2: 3	
4:	5:	
	interference Levels	
Threshold of Visibil	ity of Interference:	dBc
Point of Unusability:		dBc
Range Ratios 1:	_ 2: 3: 4: 5:	6: 7:dBc
	2: 3: 4: 5: _	
	2 5 4 5	0 7 0 dbc
	Comments	
-		
		CableLabs DRAFT 91-01-24

Test Date:	ATV Carrier	Freq.:	ATV Sys	tem:
Video Tape Numbe	or: Time	Code:	Test En	gineer:
Test Data Accept	ted By:			
	Expert O	bservers		
1:			3:	
4:	5:			
	Interferenc	e Leveis		
Threshold of Visit	oility of Interfere	nce:	dBc	
Point of Unusability:			dBc	
Range Ratios 1:	2: 3:	4:	5: 6:	7:dBc
Recording Levels 1	: 2: 3: _	4: 5:	6: 7:	8: dB
	Comme	nts		
				· · · · · · · · · · · · · · · · · · ·